

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is Claimed:

1. -51. (Canceled)

52. (Currently amended) A method of performing nucleic acid amplification on a plurality of biological samples positioned in a sample well tray in a thermal cycling device, comprising:

providing a sample well tray configured for horizontal translation into and out of the thermal cycling device, wherein the sample well tray movement provides for sample access external the thermal cycling device;

providing a translatable sample block assembly within the thermal cycling device, wherein the sample block assembly is adapted to move from a first position permitting the sample well tray movement into the thermal cycling device and over the sample block assembly to a second position engaging the sample tray and permitting thermal cycling;

moving the sample block assembly from a first position permitting the placement of the sample well tray onto the thermal cycling device to a second position permitting thermal cycling within the thermal cycling device;

positioning the sample well tray onto the sample block assembly to engage the sample well tray to the sample block assembly, wherein the sample well tray is configured so that it can horizontally translate into and out of the thermal cycling device;

maintaining the upper portion of the thermal cycling device substantially stationary; and

thermally cycling the device to provide nucleic acid amplification.

53. (Cancelled)

54. (Previously Presented) The method of claim 52, wherein the second position permitting alignment of the sample well tray with an optical detection system, and detecting the nucleic acid amplification during thermal cycling.

55. (Currently amended) The method of claim[[s]] 52, wherein the sample well tray is horizontally translated automatically.